

REMARKS

Claims 1, 12, 14 and 15, and newly added claims 22-26 are pending in this application. Reconsideration and allowance are respectfully requested.

The limitation of claim 13 has been incorporated by amendment into claim 1, and claim 13 has been cancelled. Claim 15, not examined as depending on a non-elected claim (claim 5) is herewith resubmitted, amended to reflect the change in dependence. Consideration of this claim is therefore respectfully requested.

Support for new claims 22-26 can be found at page 5, lines 23-28 and page 6, lines 8-13; page 6, lines 13-17; and page 9, lines 17-25.

The divisional application information is herewith corrected as noted.

The undersigned would like to point out that a priority document was filed in the parent application on which this application is based, now U.S. Patent No. 6,759,739 on May 19, 2003. Removal of this objection is respectfully requested, as no additional priority document is believed to be required.

The Examiner has cited Japanese Patent No. 2000-323613 to Mutsukawa et al., and has rejected claims 1 and 12-14 under 35 USC 102(e), and claim 12 under 35 USC 103(a). Applicants respectfully traverse.

The Examiner refers to Figure 1 of this reference and has regarded the member designated by reference numeral 26 in the figures in Mutsukawa as a reinforcing sheet. However, the member in question is not a reinforcing sheet but a solder resist. The Applicants state that paragraph [0013] of Mutsukawa when translated reads "The face for mounting a semiconductor element and the face for external connection terminals of the multilayered substrate 10 are covered with a solder resist 26, except for the pads 20a for the semiconductor element and the pads 24 for the external connection terminals". See, e.g., the discussion in the current specification, page 2, lines 2-7, which describes this same device. Solder resist (which is typically stripped from a finished product) is not a reinforcing sheet as recited in claim 1, and is certainly not a metal as recited in the dependent claims. For at least this reason Applicants respectfully request that the rejection be reconsidered and removed.

The Examiner has also regarded the member designated by 18 in the figures in Mutsukawa as a pad in the form of a bump. Although in Figure 2 of the Mutsukawa reference, this member is illustrated in the form of a bump or ball, it is in fact an electrode terminal of a

semiconductor element 16 to be mounted on a multilayered substrate 10 (see English abstract of Mutsukawa). Thus, the member in question in Mutsukawa does not represent the pad in the form of a bump provided at the face for mounting a semiconductor element of the invention of the application. As such, the Mutsukawa reference cited by the Examiner does not anticipate the features of the present invention.

The reinforcing sheets are advantageously provided on both sides of the multilayered substrate, allowing the substrate to be prevented from being warped.


When a semiconductor element is mounted on a substrate, solder paste is applied in advance to the pads of the substrate. In the case where a reinforcing sheet is simply provided on the face for mounting a semiconductor element of the substrate, the application of solder paste is difficult due to the interruption by the reinforcing sheet. This necessarily makes it difficult to mount the semiconductor element on the substrate. In such a case, the invention of the application in which the pads in the form of a bump are present on the face for mounting a semiconductor element of the multilayered substrate so that the tip of the pad protrudes from the face for mounting a semiconductor element thereon, makes application of solder paste unnecessary and makes it possible to successfully mount a semiconductor element, even if the substrate is provided with a reinforcing sheet.

The Mutsukawa reference neither teaches nor suggests the features as well as the effects of the claimed invention of the application as set out above. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejections.

No fees are believed due for this submission and for the submission of power of attorney. Should any fees be due, however, please charge the required amount to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310.

Respectfully submitted,

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